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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,598	09/04/2001	Tsuneo Sato	0649-0798P	2439

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EXAMINER
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AMINI, JAVID A

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/944,598

Applicant(s)

SATO ET AL.

Examiner

Javid A Amini

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 6-8 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-8 and 17-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 01 August 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Oct. 03, 2003 has been entered.

***Drawings***

The drawings were received on August 01, 2003. These drawings are 4-5; 11-14 and 29-30.

**Note: Applicant fails to specify why labeled the two Figs. 29-30 as “conventional art” rather than “prior art” label?**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6-8, 17-18 and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo, and further in view of Edge et al.**

1. Claim 6.

Art Unit: 2672

As per claim 6, Kondo in paragraph 0008, on page 1, teaches the step of “multidimensional lookup table producing means for producing a multidimensional lookup table having color characteristic points representing the supplied image data”; and also in Fig. 5 the decoder number 6, illustrates the multidimensional (the input and output data), as applicant illustrates in Fig. 2. of the specification. Kondo in Figs. 3 and 4 illustrates the compressed identifier and color characteristic data that represents by multidimensional lookup table, “multidimensional lookup table compression means for compressing said multidimensional lookup table,” Kondo in paragraph 0044 teaches the step of “wherein the color characteristic data, which is produced by the color characteristic description apparatus, includes the compressed multidimensional lookup table and the identifier, which identifies a restoring method for restoring the compressed multidimensional lookup table.” But Kondo does not explicitly specify compressing multidimensional lookup table. However, Edge et al. in col. 1, lines 55-67 teach that the device can approximate colors outside its gamut using the compressed regions of the color space. Many devices are incapable of realizing the complete range of colors in a color space; gamut mapping typically involves compressing or scaling regions of the color space. Thus, to one of ordinary skill in the art it would have been obvious to use the teaching of Edge et al. into Kondo since the references are directed to the same process of storing and arrangement for image/color signal using compressed identifiers and color characteristic data (they are part of LUT) with the color management systems that performs gamut mapping.

## 2. Claim 7

As per claims 7, Kondo in paragraph 0008, on page 1, teaches the step of “multidimensional lookup table compression means for producing a multidimensional lookup table having color

Art Unit: 2672

characteristic points representing the supplied image data;” and also in Fig. 5 the decoder number 6, illustrates the multidimensional (the input and output data), as applicant illustrates in Fig. 2. of the specification. Kondo in Figs. 3 and 4 illustrates the compressed identifier and color characteristic data that represents by multidimensional lookup table, “multidimensional lookup table compression means for compressing said multidimensional lookup table”, Kondo in paragraph 0044 teaches the step of “wherein the color characteristic data, which is produced by the color characteristic description apparatus, includes the compressed multidimensional lookup table and software for restoring the compressed multidimensional lookup table.” But Kondo does not explicitly specify compressing multidimensional lookup table. However, Edge et al. in col. 1, lines 55-67 teach that the device can approximate colors outside its gamut using the compressed regions of the color space. Many devices are incapable of realizing the complete range of colors in a color space; gamut mapping typically involves compressing or scaling regions of the color space. Thus, to one of ordinary skill in the art it would have been obvious to use the teaching of Edge et al. into Kondo since the references are directed to the same process of storing and arrangement for image/color signal using compressed identifiers and color characteristic data (they are part of LUT) with the color management systems that performs gamut mapping.

### 3. Claim 8

As per claim 8, Kondo in paragraph 0009, page 1, teaches the step of “A color characteristic description apparatus according to claim 7, wherein color characteristic data which is produced by said color characteristic description apparatus further incorporates an identifier for identifying a restoring method for restoring compressed data and software for converting the restored multidimensional lookup table into an ICC profile”.

Art Unit: 2672

## 4. Claim 17

As per claim 17, Kondo in paragraph 0008, on page 1, teaches the step of “a multidimensional lookup table producer for producing a multidimensional lookup table; and also in Fig. 5 the decoder number 6, illustrates the multidimensional (the input and output data), as applicant illustrates in Fig. 2. of the specification. Kondo in Figs. 3 and 4 illustrates the compressed identifier and color characteristic data that represents by multidimensional lookup table, “a compressor for compressing said multidimensional lookup table, Kondo in paragraph 0044 teaches the step of “wherein the color characteristic description apparatus outputs color characteristic data, which includes said compressed multidimensional lookup table and an identifier for identifying a restoring method for restoring said compressed multidimensional lookup table.” But Kondo does not explicitly specify compressing multidimensional lookup table. However, Edge et al. in col. 1, lines 55-67 teach that the device can approximate colors outside its gamut using the compressed regions of the color space. Many devices are incapable of realizing the complete range of colors in a color space; gamut mapping typically involves compressing or scaling regions of the color space. Thus, to one of ordinary skill in the art it would have been obvious to use the teaching of Edge et al. into Kondo since the references are directed to the same process of storing and arrangement for image/color signal using compressed identifiers and color characteristic data (they are part of LUT) with the color management systems that performs gamut mapping.

## 5. Claim 18

As per claim 18, Kondo in paragraph 0033, page 3, teaches the step of the digital three-primary-color data R, G, and B corresponding to color tones of the three primary colors of the color

Art Unit: 2672

picture are obtained by digitally converting original data that has not been compressed (namely, three primary color signals are captured by a video camera or the like).

6. Claim 22

As per claim 22, Kondo in paragraph 0008, on page 1, teaches the step of “producing a multidimensional lookup table in a color characteristic description apparatus; and also in Fig. 5 the decoder number 6, illustrates the multidimensional (the input and output data), as applicant illustrates in Fig. 2. of the specification. Kondo in Figs. 3 and 4 illustrates the compressed identifier and color characteristic data that represents by multidimensional lookup table, compressing said multidimensional lookup table in said color characteristic description apparatus; Kondo in paragraph 0044 teaches the step of “outputting said color characteristic data from said color characteristic description apparatus, said color characteristic data including said compressed multidimensional lookup table and an identifier for identifying a restoring method for restoring said compressed multidimensional lookup table; Kondo in paragraph 0016 teaches the step of “synthesizing said outputted color characteristic data with image data, which is then outputted as camera output data.” But Kondo does not explicitly specify compressing multidimensional lookup table. However, Edge et al. in col. 1, lines 55-67 teach that the device can approximate colors outside its gamut using the compressed regions of the color space. Many devices are incapable of realizing the complete range of colors in a color space; gamut mapping typically involves compressing or scaling regions of the color space. Thus, to one of ordinary skill in the art it would have been obvious to use the teaching of Edge et al. into Kondo since the references are directed to the same process of storing and arrangement for image/color signal

Art Unit: 2672

using compressed identifiers and color characteristic data (they are part of LUT) with the color management systems that performs gamut mapping.

**Claims 19-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo, and Edge et al., and further in view of Adams et al. (hereinafter, called Adams),**

1. As per claim 19, the step of using a colorimeter to detect the different colors is obvious because an instrument or device for determining and specifying colors. The colorimeter is well known in the art.

2. As per claim 20, Kondo in paragraph 0016 teaches the step of the memory apparatus comprising a memory portion for storing the color compressed video data and a color-restoring portion for restoring the color compressed video data into original video data (image data). But Kondo and Edge et al. do not explicitly specify outputted color characteristic data is synthesized with image data. However, Adams et al. in col. 8, lines 13-36 and also in abstract teach outputted color characteristic data is synthesized with image data, see Adams, claim 9. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Adams et al. in the combination of Kondo and Edge et al. in order to take advantage of the single buffering technique of the Adams, that the video frames from source are often interlaced to thereby improve display resolution without increasing the amount of data per frame.

3. As per claim 21, Kondo does not explicitly specify a repairing method, however Adams et al. 4B illustrates an input data stream S1 which includes a series of 4-bit color indicators and a modified data stream S2 in which the 4-bit color values are converted to 8-bit indicators in accordance with the present invention.

***Conclusion***

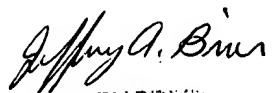
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Javid A Amini  
Examiner  
Art Unit 2672

Javid Amini

  
JEFFERY BRIEN  
PRIMARY EXAMINER